



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**WASHINGTON, DC 20460**  
OFFICE OF RESEARCH AND DEVELOPMENT

Ms. Elisabeth Storm  
American Chemical Council  
700 2<sup>nd</sup> St. NE, FL 9  
Washington DC 20002

**RE: Freedom of Information Act Request from EPA-2023-003887; Interim Response No. 1**

Dear Ms. Storm,

**1. SUMMARY OF REQUEST**

This letter is in response to your Freedom of Information Act (FOIA) request received April 24, 2023, for all records, including, but not limited to, email exchanges and notes of conversations from or with employees in the EPA Office of Research and Development and study authors noted below, as well as material reflecting the substance or existence (including call logs or voice mails) of any such communications, related to the draft IRIS formaldehyde assessment (draft assessment) and/or their studies cited in the draft assessment, that mention or are sent to or from (including copying as cc: or bcc:) the following study authors and specific communications cited in the Draft IRIS Assessment. The date of the records request is from January 1, 2009, to the date of the search.

**2. DISPOSITION**

Full Grant

**3. DESCRIPTION OF RECORDS**

The following requested communications are now publicly available at the below eight websites:

<b>Main Tox Review</b>	
1. 1-2 The results of the 2014 ambient air concentration modeling for formaldehyde suggest that county mean air levels range from 0.1 to 2.78 µg/m <sup>3</sup> with a national mean of 1.3 µg/m <sup>3</sup> [personal communication to EPA (Palma, 2018)].	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566242">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566242</a>

2. 1-49 Neghab "Regression coefficients (percentage difference ; SD provided by author; p-value):	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566238">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566238</a>
3. 1-92 And 1-108 (Midpoint of highest quartile estimated as 0.07 mg/m <sup>3</sup> based on personal communication (Matsunaga, 2012))	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566239">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566239</a>
4. 1-360 Sex and cohort information provided to EPA by personal communication (Kaplan, 2014, 2012).	<p>2014:  <a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566245">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566245</a></p> <p>2012:  <a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566244">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566244</a></p>
5. 2-14 Using the reported OR per quartile exposure from the regression results, and the median exposure values for each quartile (personal communication to EPA (Venn, 2012)), EPA calculated the concentration associated with a 5% increase in prevalence of symptoms above the prevalence observed in the referent group (for details of BMCL calculations, see Appendix B.1.2).	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566241">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566241</a>
6. 2-15 For atopic eczema NOAEL selection: 0.046 mg/m <sup>3</sup> , midpoint for third exposure category (corresponding to RR 1.11); LOAEL selection: 0.062 mg/m <sup>3</sup> , estimated median of fourth category (personal communication to EPA (Matsunaga, 2012)) (corresponding to RR 2.25) For rhinitis NOAEL selection: 0.062 mg/m <sup>3</sup> , based on median of fourth exposure category	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566239">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566239</a>
7. 2-49 Dr. Beane Freeman provided EPA with the $\beta$ estimates (and their standard errors) from the trend tests for NPC and the cumulative exposure metric for all person-years and for exposed person-years only (personal	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/8141429">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/8141429</a>

communication to EPA from Laura Beane Freeman, NCI, to Jennifer Jinot, EPA, February 22, 2013).	
8. 2-83 For myeloid leukemia, Beane Freeman et al. (2009) reported an increasing trend in mortality risk ( $p = 0.07$ for all person-years) for peak exposure, but no trend was observed for cumulative exposure. For myeloid leukemia and other/unspecified leukemias combined, recognizing that a substantial proportion of the unspecified leukemias are probably myeloid leukemias, there was a nearly significant (log-linear) trend with cumulative exposure ( $p = 0.10$ for all person-years) (personal communication from Laura Beane Freeman, NCI, to Jennifer Jinot, U.S. EPA, 21 February 2014).	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/8141429">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/8141429</a>
<b>9. Appendices - External Review Draft - EPA/635/R-22/039b</b>	
10. A-325 Neghab "Obtained additional information from author to clarify results." Note: since the information is not identified, please provide any relevant communication.	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566238">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566238</a>
11. A-377 Information on percent below detection limit and individual student exposures provided in email from Dr. Greta Dannemiller, March 22, 2012	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566240">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566240</a>
12. A-620 Communication with the study author detailed that male rats (2 per litter from 3 separate dams per dose group) were used in the Sarsilmaz et al. (2007)	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566245">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566245</a>
13. B-16 which experienced a median formaldehyde concentration of 12.24 $\mu\text{g}/\text{m}^3$ (Venn, 2012 personal communication).	<a href="https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566241">https://hero.epa.gov/hero/index.cfm/reference/details/reference_id/4566241</a>

#### 4. COST INFORMATION

There are no costs associated with this interim response.

## 5. APPEAL RIGHTS AND CONTACT INFORMATION

You may appeal this response by email at [hq.foia@epa.gov](mailto:hq.foia@epa.gov), or by mail to the EPA's National FOIA Office, U.S. EPA, 1200 Pennsylvania Avenue, N.W. (2310A), Washington, DC 20460. If you are submitting your appeal by hand delivery, courier service, or overnight delivery, you must address your correspondence to 1200 Pennsylvania Avenue, N.W., WJC-N Building, Room 7309C, Washington, DC 20460.

Your appeal must be in writing, and it must be received no later than 90 calendar days from the date of this letter. The Agency will not consider appeals received after the 90-calendar-day limit. Appeals received after 5:00 pm EST will be considered received the next business day. The appeal letter should include the FOIA tracking number listed above. For quickest possible handling, the subject line of your email, the appeal letter, and its envelope, if applicable, should be marked "Freedom of Information Act Appeal."

Additionally, you may seek dispute resolution services from EPA's FOIA Public Liaison at [hq.foia@epa.gov](mailto:hq.foia@epa.gov) or (202) 566-1667, or from the Office of Government Information Services (OGIS). You may contact OGIS in any of the following ways: by mail, Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road, College Park, MD 20740-6001; email: [ogis@nara.gov](mailto:ogis@nara.gov); telephone: (202) 741-5770 or (877) 684-6448; or fax: (202) 741-5769. For all media inquiries, please contact [press@epa.gov](mailto:press@epa.gov).

If you have any questions regarding this response, please contact Ms. Rebecca Clausen, ORD National FOIA Officer, at [clausen.rebecca@epa.gov](mailto:clausen.rebecca@epa.gov).

Sincerely,

John W. Steenbock  
Director  
Office of Resource Management